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ABSTRACT

The study contrasted the learning of the Rebus and Bliss symbol systems by language-delayed preschoolers. Subjects included 26 black preschool children, aged 4-6. Results showed that Rebus pre-test and post-test scores were significantly higher than Bliss pre-test and post-test scores. Results also showed a 35% improvement in identification of Rebus symbols from pre- to post-test and a 73.2% improvement for identification of Bliss symbols. These results indicate that language-delayed children were able to acquire symbols from both systems, and that the Rebus symbols were more easily recognizable than the more iconic Bliss symbols. (JDD)

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THE ACQUISITION OF CONTRASTING SYMBOL SYSTEMS BY LANGUAGE DELAYED CHILDREN

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INTRODUCTION

The use of augmentative communication systems has increased dramatically in recent years. Some nonspeech systems bear a distinct visual relationship to what they represent, while others are more abstract in their representations. Two graphic symbol systems, Rebus and Bliss, are frequently used as augmentative systems of communication. The Rebus system is a nongenerative system of approximately 950 symbols that are primarily pictographic. Rebus symbols can be classified into three catagories; concrete symbols which depict objects or actions, relational symbols which depict locations or directions, and abstract symbols which are primarily arbitrary symbols. In contrast, the Bliss system is a generative system of 100 basic symbols. These symbols can be used over and over to form new words. With the Bliss system almost any word or meaning can be formed by learning the basic symbols, and placement and combination rules.

The majority of research concerning these symbol systems has studied the acquisition of one system within a specific group

(McNaughton, 1976; Harris-Vanderheiden, Brown, MacKenzie, Reiner, and Schiebel, 1975; and Song, 1979). Studies comparing symbol systems have investigated normal subjects (Clark, 1981, Musselwhite and Ruscello, 1984; and Ecklund and Reichle, 1987), severely involved adolescents (Hurlbut, Iwata, and Green, 1982; and Kuntz, 1975), and moderately retarded adolescents and adults (Goossens', 1984). Comparison with additional groups can provide information for system assignment and intervention programming. One such group that invites study is the preschool verbal language delayed group. More knowledge about recall of various symbol systems with this group could provide important information regarding the selection of an appropriate system. In addition, intervention with graphic symbol systems with this population could have implications for faster verbal and pragmatic language development.

PURPOSE

The purpose of this study was to contrast the learning of the Rebus and Bliss symbol systems with language delayed preschoolers. Questions addressed included: 1) would there be significant differences between Rebus pre- and post-tests scores; 2) would there be significant differences between Bliss pre- and post-test scores; 3) would there be significant differences between Rebus and Bliss pre-test scores; and
4) would there be significant differences between Rebus and Bliss post-test scores?

METHODOLOGY

SUBJECTS

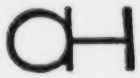
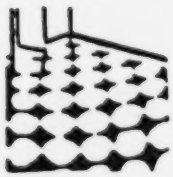
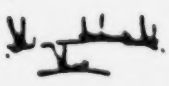
Subjects included 26 preschool Black children ranging in age from 4 years 1 month to 6 years
6 months. Subjects exhibited delays of receptive vocabulary of 7 months to 2 years 5 months as indicated by the Peabody Picture Vocabulary Test: Revised (Dunn and Dunn, 1981).

PROCEDURE

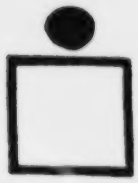
Each subject was tested with both the Rebus and Bliss symbol systems. Subjects were randomly assigned to one of two groups. Group One was tested with Bliss symbols first and Rebus second, and Group Two was tested with Rebus symbols first and Bliss second.

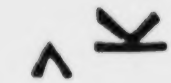
During administration of the pre-test subjects were asked to verbally identify each of the 15 stimulus symbols (see Figure 1). The training task, which was divided into eight levels, was then administered. At each level a stimulus page containing new symbols was presented, followed by a response page. Subjects were shown a stimulus page, told what the symbol represents, and asked to repeat it. A response page was then displayed and subjects were asked to name each symbol as the examiner pointed to it. The last response page contained all 15 symbols and served as the post-test.

I. STIMULUS SYMBOLS

	REBUS	BLISS
BABY		
BED		
BIRD		
CAR		
CHAIR		
FLOOR		
GRASS		
MAN		

ON





PLAY

SIT

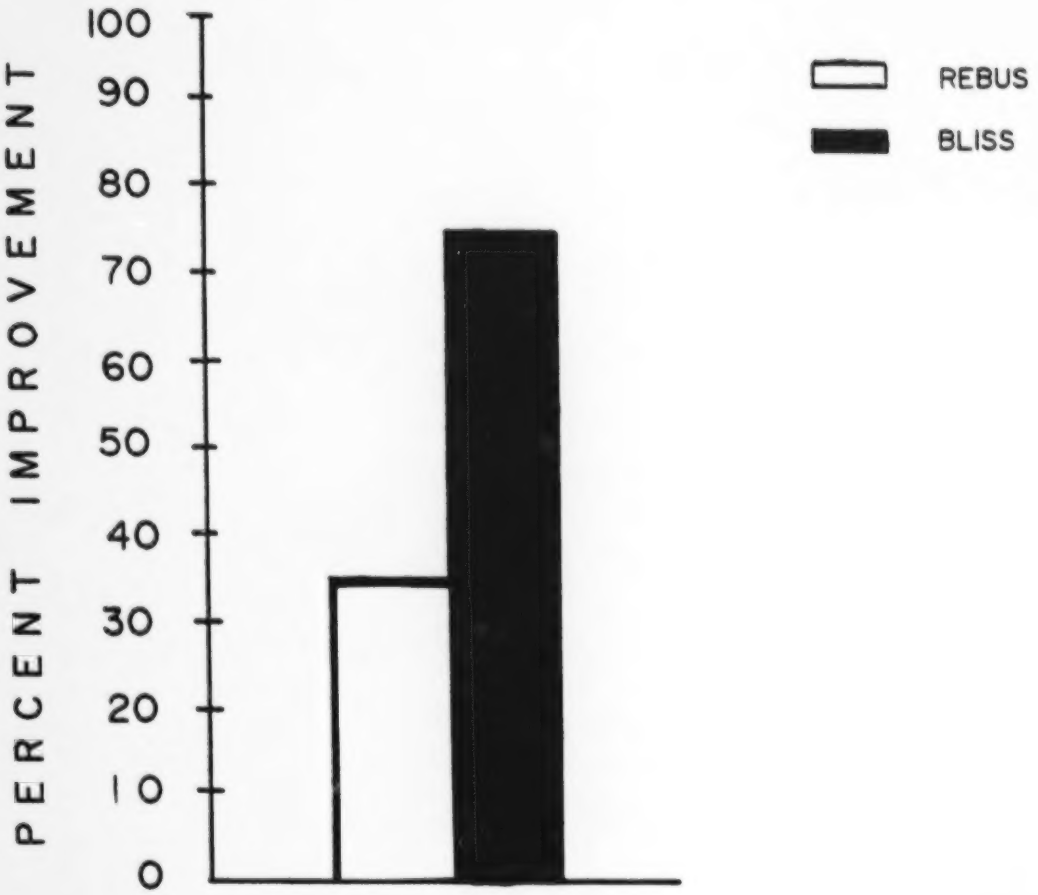
STAND

TREE

UNDER

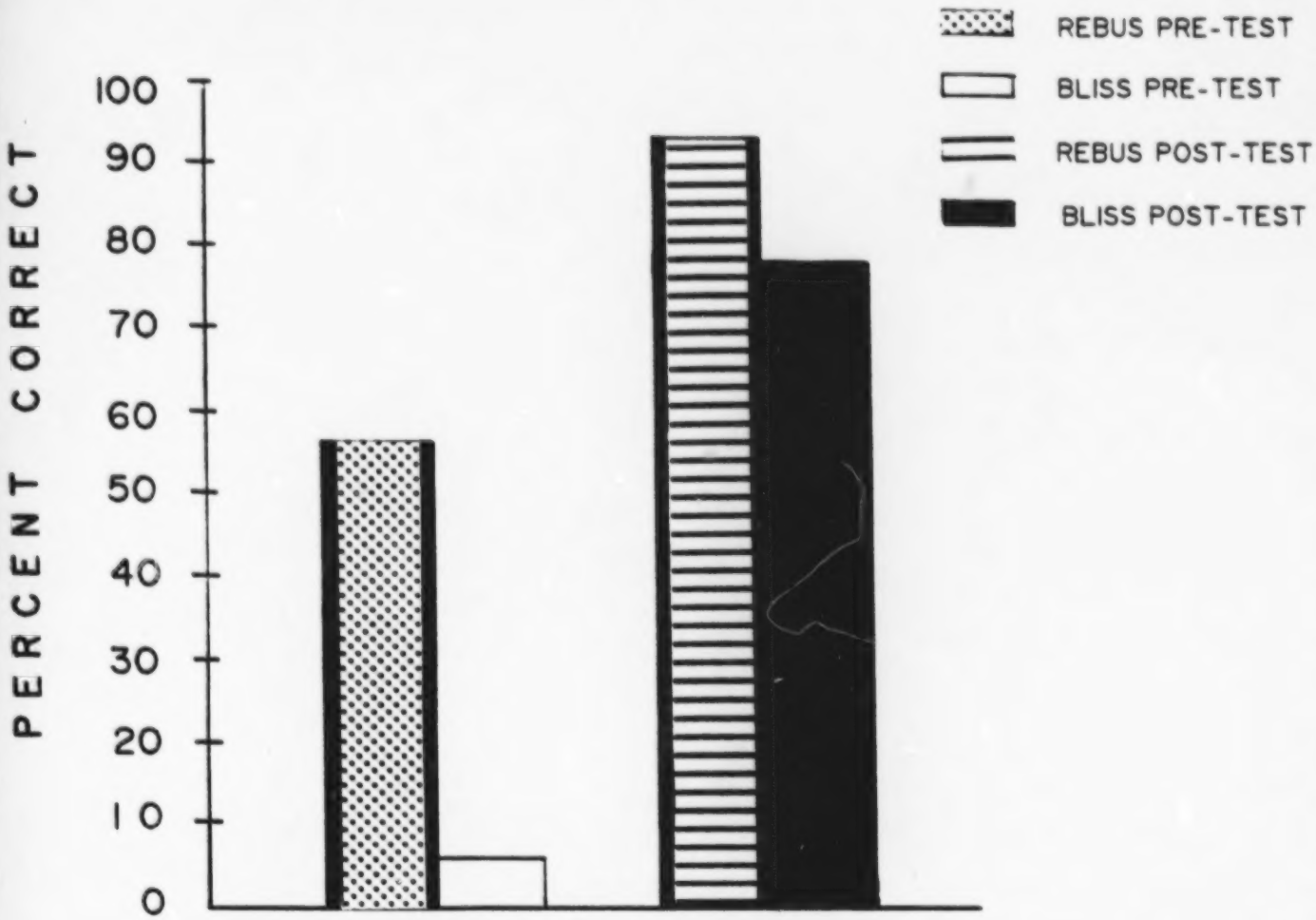
WOMAN

GREATER IMPROVEMENT WAS OBSERVED FOR THE BLISS CONDITION



Mean percentage correct scores were computed to determine the amount of improvement from pre- to post-test for each testing condition. Results show a 35% improvement from Rebus pre- to post-test, while a 73.2% improvement was observed from Bliss pre- to post-test. These results indicate that although the Bliss symbols are less pictographic and not as readily recognized as the Rebus symbols, language delayed preschool children were capable of recalling the stimulus symbols.

REBUS SCORES WERE SIGNIFICANTLY HIGHER THAN BLISS SCORES



Rebus pre- and post-test scores were significantly higher than Bliss pre- and post-test scores. These results indicate that the Rebus symbols were more easily recognizable than the more iconic Bliss symbols. Significant improvement was seen from both Rebus pre-test to post-test and Bliss pre-test to post-test, indicating that language delayed children were able to acquire symbols from both systems.

CONCLUSIONS

1. Preschool language delayed children recalled significantly more Rebus symbols than Bliss symbols.

2. Greater improvement was observed from Bliss pre- to post-test, indicating that preschool language delayed children were capable of recalling the more ideographic Bliss symbols.

3. Ease of acquiring a symbol system should be a factor in the selection of a system for a learning-handicapped individual. Valuable time can be wasted in attempting to learn a difficult system when a more iconic system would be appropriate.

4. The particular needs of the client should also be considered. If the client's intellectual functioning appears to be low, the Rebus system may be the more appropriate choice. If the client is capable of comprehending abstract symbols and combinations of symbols, then the Bliss system may be the better choice since it allows for complex representations of language.